WHAT IS CLAIMED IS:

1. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board to an ~~LD~~ laser diode electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signal;

a ~~PD~~ photodiode module for converting a photodiode optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said ~~PD~~ photodiode electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein said connector is of a surface mounting type.

2. A fiber optic module as set forth in claim 1, wherein leads of said ~~LD~~ laser diode and ~~PD~~ photodiode modules are connected to a surface of said circuit board provided thereon with said connector.

3. A fiber optic module as set forth in claim 2, further comprising an ~~LD~~ laser diode variable resistor for adjusting a drive current of said ~~LD~~ laser diode module and wherein said ~~LD~~ laser diode variable resistor is provided on a surface of said

circuit board opposed to said surface having said connector thereon.

4. A fiber optic module as set forth in claim 2, further comprising a ~~PD~~ photodiode variable resistor for detecting a signal of said ~~PD~~ photodiode module and wherein said ~~PD~~ photodiode variable resistor is provided on a surface of said circuit board opposed to said surface having said connector thereon.

5. A fiber optic module as set forth in claim 1, wherein said ~~PD~~ photodiode electric signal conversion means includes a plurality of semiconductor ~~ICs~~ integrated circuits.

6. A fiber optic module as set forth in claim 1, wherein said circuit board measures 17mm through 25.4mm wide, 30mm through and 50mm long.

7. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board to an ~~LD~~ laser diode electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signal;

a ~~PD~~ photodiode module for converting a photodiode optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said ~~PD~~ photodiode electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein outline dimensions of said fiber optic module are 19mm through 25.4mm wide, 45mm through 65mm high and 9mm through 25.4mm high.

8. A fiber optic module as set forth in claim 7, further comprising a casing, said casing comprising said first and second frames forms an outside casing.

9. A fiber optic module as set forth in claim 7, wherein said first and second frames are made of resin material.

10. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board to an ~~LD~~ laser diode electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signal;

a ~~PD~~ photodiode module for converting a photodiode optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said ~~PD~~ photodiode electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein said module comprises mounting means for mounting said first and second frames to said mother board.

11. A fiber optic module as set forth in claim 10, wherein said mounting means includes a screw.

12. A fiber optic module as set forth in claim 11, further comprising a first frame openings provided in said first frame, a second frame openings provided in said second frame, a circuit board openings provided in said circuit board, and a mother board openings provided in said mother board, and wherein screws are inserted into said first openings, second frame openings, said circuit board openings and said mother board openings to cause said first frame, said second frame, said circuit board and said mother board to be mutually fixed.

13. A fiber optic module as set forth in claim 12, wherein said first frame openings is smaller than said second frame openings and said circuit board openings and said mother board openings have substantially the same diameter as said second frame opening.

14. A fiber optic module as set forth in claim 10, wherein said screws have an effective diameter of 1.3mm or more.

15. A fiber optic module as set forth in claim 12, wherein 3 of said first frame openings are provided in said first frame and said first frame openings are arranged to form a substantially isosceles triangle.

16. A fiber optic module as set forth in claim 12,

wherein said first frame openings are used also as reference holes for parts inspection of said first frame and said second frame openings are used also as reference holes for parts inspection of said second frame.

17. A fiber optic module as set forth in claim 11, wherein said screws are tapping screws.

18. A fiber optic module as set forth in claim 10, wherein pins erected on at least one of said first and second frames are used as said mounting means.

19. A fiber optic module as set forth in claim 18, wherein pins erected only on said second frame are used as said mounting means.

20. A fiber optic module as set forth in claim 19, further comprising first frame openings provided in said first frame, a circuit board openings provided in said circuit board, and a mother board openings provided in said mother board, and wherein screws are inserted into said first frame openings, said circuit board openings and said mother board openings to cause said first frame, said circuit board and said mother board to be mutually fixed.

21. A fiber optic module as set forth in claim 20, wherein said first frame openings are larger than a diameter of said pin and said circuit board openings and said mother board openings have substantially the same diameter as said first frame openings.

22. A fiber optic module as set forth in claim 19,

wherein said pin has a diameter of 1.3mm or more.

23. A fiber optic module as set forth in claim 19, wherein said pin is made of metallic material.

24. A fiber optic module as set forth in claim 19, wherein said pin is integrally formed with said second frame or press fitted therein.

25. A fiber optic module as set forth in claim 20, wherein 3 of said first frame openings are provided in said first frame and said first frame openings are arranged to form a substantially isosceles triangle.

26. A fiber optic module as set forth in claim 20, wherein said first frame openings are used also as reference holes for parts inspection of said first frame and said pins are used also as reference holes for parts inspection of said second frame.

27. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ electric signal conversion means for converting serial data received from said mother board to an LD electric signal for a laser diode;

an ~~LD~~ module for converting said ~~LD~~ electric signal to an ~~LD~~ optical signal;

a ~~PD~~ module for converting a photodiode optical signal to a ~~PD~~ electric signal;

~~PD~~ electric signal conversion means for converting said ~~PD~~ electric signal to ~~PD~~ serial data;

a circuit board for carrying thereon said

connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photo diode module,

wherein said circuit board is temporarily fixed to at least one of said first and second frames.

28. A fiber optic module as set forth in claim 27, wherein said temporary fixing means is a snap-fit mechanism.

29. A fiber optic module as set forth in claim 28, wherein said circuit board is temporarily fixed at an end thereof by said snap-fit mechanism.

30. A fiber optic module as set forth in claim 27, wherein an elastic arm is provided to at least one of said first and second frames and said circuit board is temporarily fixed to the other frame by said elastic arm.

31. A fiber optic module as set forth in claim 27, wherein said circuit board is temporarily fixed at a front part thereof by a snap-fit mechanism and said circuit board is temporarily fixed to the other frame at a rear part thereof by an elastic arm.

32. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board to an LD electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signal;

a ~~PD~~ photodiode module for converting a photodiode ~~(PD)~~ optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said ~~PD~~ photodiode electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein said module further comprises supporting means for tightening to fix said first and second frames and said mother board from their outer periphery.

33. A fiber optic module as set forth in claim 32, wherein said supporting means is made of metallic plate.

34. A fiber optic module as set forth in claim 33, wherein said metallic plate is provided in its both ends with recesses and said recesses are rotated to tighteningly fix said metallic plate.

35. A fiber optic module as set forth in claim 32, wherein said supporting means is positioned at a position opposed to said ~~LD~~ laser diode and ~~PD~~ photodiode modules.

36. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for

converting serial data received from said mother board to an ~~LD~~ laser diode electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signa;

a ~~PD~~ photodiode module for converting a photodiode optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said ~~PD~~ photodiode electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein said module further includes a cover for covering an externally exposed part of said circuit board therewith.

37. A fiber optic module as set forth in claim 36, wherein said cover is made of resin material.

38. A fiber optic module as set forth in claim 36, wherein said cover is made of metallic material.

39. A fiber optic module as set forth in claim 36, wherein said cover is made in the form of said first frame.

40. A fiber optic module as set forth in claim 36, wherein said cover is provided therein with an opening.

41. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board to an ~~LD~~ laser diode electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signal;

a ~~PD~~ photodiode module for converting a photodiode optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said ~~PD~~ photodiode electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein said module further comprises indication parts indicative of a safety certification and a place of production provided respectively onto said first and second frames.

42. A fiber optic module as set forth in claim 41, wherein said indication part provided onto said first frame is opposed to said indication part provided onto said second frame.

43. A fiber optic module as set forth in claim 42, wherein said first and second frames have a recess and said indication parts are provided to said recesses.

44. A fiber optic module as set forth in claim 41, wherein said indication parts are seal labels.

45. A fiber optic module as set forth in claim 41,

wherein said indication parts are provided integrally to said first and second frames respectively.

46. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board to an ~~LD~~ laser diode electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signal;

a ~~PD~~ photodiode module for converting a photodiode optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said ~~PD~~ photodiode electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein a data transmission rate of said optical signal is 130 Mbits/s or more.

47. A fiber optic module as set forth in claim 46, wherein the data transmission rate of said optical signal is 200 Mbits/s or more.

48. A fiber optic module as set forth in claim 46, wherein the data transmission rate of said optical signal is 500 Mbits/s or more.

49. A fiber optic module as set forth in claim 46,

wherein the data transmission rate of said optical signal is 1000 Mbits/s or more.

50. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board to an ~~LD~~ laser diode electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signal;

a ~~PD~~ photodiode module for converting a photodiode optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said PD electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photo diode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein said fiber optic module further includes a module cap to be inserted into light outlet and inlet openings defined by said first and second frames along a light inlet and outlet direction.

51. A fiber optic module as set forth in claim 50, wherein said module cap has cap fixing means engaged with part of said first and second frames and fixed to at least one of said first and second frames.

52. A fiber optic module comprising:

a connector for connection with a mother board;

~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board to an ~~LD~~ laser diode electric signal for a laser diode;

an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric signal to an ~~LD~~ laser diode optical signal;

a ~~PD~~ photodiode module for converting a photodiode optical signal to a ~~PD~~ photodiode electric signal;

~~PD~~ photodiode electric signal conversion means for converting said PD electric signal to ~~PD~~ photodiode serial data;

a circuit board for carrying thereon said connector, said ~~LD~~ laser diode electric signal conversion means, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

first and second frames for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

wherein said fiber optic module includes a shielding member for shielding at least one of said ~~LD~~ laser diode and ~~PD~~ photodiode modules.

53. A fiber optic module as set forth in claim 52, wherein a shielding plate for exclusive use of said ~~LD~~ laser diode module and a shielding plate for exclusive use of said ~~PD~~ photodiode module.

54. A fiber optic module as set forth in claim 52, wherein at least one of said first and second frames is provided integrally with a shielding plate.

55. A fiber optic module comprising:

a connector for connection with a mother

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board;

a ~~LD~~ laser diode electric signal conversion means for converting serial data received from said mother board

a to an ~~LD~~ laser diode electric signal for a laser diode;

a an ~~LD~~ laser diode module for converting said ~~LD~~ laser diode electric

a signal to an ~~LD~~ laser diode optical signal;

a a ~~PD~~ photodiode module for converting a photodiode

a optical signal to a ~~PD~~ photodiode electric signal;

a ~~PD~~ photodiode electric signal conversion means for

a converting said ~~PD~~ photodiode electric signal to ~~PD~~ photodiode serial data;

a connector, said ~~LD~~ laser diode electric signal conversion means,

a said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

a circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module,

first and second frames for holding said

wherein elastic pawls to be engaged with an optical fiber plug are provided to at least one of said first and second frames and said pawls are provided at their root parts with first projections extended toward the other frame.

56. A fiber optic module as set forth in claim 55, wherein second projections for protecting said first projections are provided to an opposite frame being opposite to the frame provided with said first projections.

57. A fiber optic module as set forth in claim 55, wherein said first and second frames and said pawls are made of resin material.

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58. A fiber optic module comprising:

a connector for connecting with a mother board of a computer;

a first semiconductor integral circuit for converting a first parallel data provided from the mother board into a first serial data for a laser diode;

a second semiconductor integral circuit for converting said first serial data for the laser diode converted by said first semiconductor integral circuit into a first electrical signal;

a laser diode module including a laser diode for converting said first electrical signal for the laser diode into a first optical signal of the laser diode;

a photodiode module including a photodiode for converting a second optical signal received by said photodiode into a second electrical signal of the photodiode;

a third semiconductor integral circuit for converting said second electrical signal of the photodiode into a second serial data of the photodiode;

a fourth semiconductor integral circuit for converting said second serial data of the photodiode converted by said third semiconductor integral circuit into a second parallel data;

a circuit board for furnishing with said connector, said first semiconductor integral circuit, said second semiconductor integral circuit, said third

semiconductor integral circuit and said fourth semiconductor integral circuit;

a first shielding plate for electrically shielding said ~~LD~~ laser diode module;

a second shielding plate for electrically shielding said ~~PD~~ photodiode module;

a first frame for holding said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module; and

a second frame for cooperating with said first frame to hold said circuit board, said ~~LD~~ laser diode module and said ~~PD~~ photodiode module.